


# Murphy and Zheng co-recipients of MRS Medal

Catherine J. Murphy, University of Illinois at Urbana-Champaign, and Haimei Zheng, Lawrence Berkeley National Laboratory (LBNL), have received the 2019 Materials Research Society (MRS) Medal "for outstanding contributions on the study of anisotrop-ic nanoscale materials, transformation and application."

Murphy holds the Larry R. Faulkner Endowed Chair in Chemistry at the University of Illinois at Urbana-Champaign. She earned two BS degrees (chemistry and biochemistry) from the University of Illinois and her PhD degree from the University of Wisconsin. After postdoctoral fellowships at the California Institute of Technology, Murphy became a faculty member in the Department of Chemistry and Biochemistry at the University of South Carolina. In 2009, she joined the faculty of the Department of Chemistry at the University of Illinois. Her laboratory has pioneered the aqueous colloidal synthesis, surface chemistry, biological applications, and environmental implications of anisotropic gold and silver nanoparticles. Her primary research goal is to develop inorganic nanomaterials for biological and energy-related applications, and to understand the chemical interactions of these nanomaterials with their surroundings.

Murphy's honors include election to the American Academy of Arts & Sciences (2019) and the National Academy of Sciences (2015). She is a Fellow of MRS and was ranked 10th on the Thomson Reuters list of "Top 100 Materials Scientists of the Decade 2000–2010." Murphy has more than 250 publications.

Zheng is a senior staff scientist in the Materials Sciences Division at LBNL and an adjunct professor in the Materials Science and Engineering Department at the University of California (UC), Berkeley. She received her PhD degree in Materials Science and Engineering from the University of Maryland at College Park. Prior to her independent research at LBNL, she was a postdoctoral fellow at UC Berkeley and LBNL.

Her research interests are centered on understanding how atomic level heterogeneity and fluctuations control the physical and chemical processes of materials. By developing and applying *in situ* transmission electron microscopy, her group studies the nucleation, growth, and transformations of nanoscale materials and solid–liquid (including electrode–electrolyte) interfaces. Her research efforts have enabled novel materials engineering and device development. She received the LBNL Director's Award for Exceptional Scientific Achievement in 2013. She was also a recipient of the US Department of Energy Office of Science Early Career Award in 2011.

Murphy and Zheng will be recognized during the Awards Ceremony at the 2019 MRS Fall Meeting in Boston. The title of Murphy's talk is "A Golden Time for Nanotechnology," and Zheng's talk is titled "Real Time Imaging of Nanoscale Materials Transformations in Liquids."

# Silvia Vignolini to present The Kavli Foundation Early Career Lectureship in Materials Science

Silvia Vignolini is an associate professor of chemistry and bioinspired materials at the University of Cambridge. Vignolini studied physics at the Università degli Studi di Firenze, Italy. She received a PhD degree in solid-state physics at the European Laboratory for Non-Linear Spectroscopy and the Physics Department at the Università degli Studi di Firenze. In 2010, she moved to Cambridge University as a postdoctoral research associate working in the Cavendish Laboratory and the Plant Science Department.

In 2013, Vignolini started her independent research, becoming a Biotechnology and Biological Sciences Research Council David Phillips Fellow. Her research interests lie at the interface of chemistry, soft-matter physics, optics, and biology. In particular, her research focuses on the study of how natural materials (e.g., cellulose) are assembled into complex architectures within living organisms and how such materials can be exploited to fabricate novel photonic pigments.

In her presentation, "Color Engineering: From Nature to Applications," Vignolini will introduce some examples of natural photonic structures and review recent advances to fabricate biomimetic photonic pigments using the same materials as nature.

The Kavli Foundation is dedicated to advancing science for the benefit of humanity, promoting public understanding of scientific research, and supporting scientists and their work.


https://doi.org/10.1557/mrs.2019.269 Published online by Cambridge University Press